

Appl. No. 09/739,952

Response to Office Action of August 23, 2005

REMARKS

This Response is submitted in reply to the Office Action dated August 23, 2005. Claims 1-13, 15-28 and 30-35 are pending in the patent application. Claims 14 and 29 were previously withdrawn. Claims 1-13, 15-28 and 30-35 were rejected under 35 U.S.C. § 103(a). Applicant respectfully submits, for at least the reasons set forth below, that the rejections are improper. Accordingly, Applicant respectfully requests reconsideration of the patentability of Claims 1-13, 15-28 and 30-35.

Claims 1, 4, 5-7, 9, 10, 12, 15, 16, 22, 24, 25, 26-28 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 5,917,490 to Kuzumuki et al. ("Kuzumuki"). Applicant respectfully disagrees with the Patent Office and submits that Kuzumuki fails to make obvious the claimed invention as embodied in claims 1-13, 15-28 and 30-35. Applicant submits that the claimed language, "a display means for displaying an image on said operation surfaces," as similarly recited in each independent claim is a means limitation and should be interpreted in light of the specification. The Court of Appeals for the Federal Circuit has held as follows:

The "means or step plus function" limitation should be interpreted in a manner consistent with the specification disclosure. The Federal Circuit explained the two step analysis involved in construing means-plus-function limitations in *Golight Inc. v. Wal-Mart Stores Inc.*, 355 F.3d 1327, 1333-34, 69 USPQ2d 1481, 1486 (Fed. Cir. 2004).

The first step in construing a means-plus-function claim limitation is to define the particular function of the claim limitation. *Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1376 [58 USPQ2d 1801, 1806] (Fed. Cir. 2001). "The court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and only those limitations." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 [63 USPQ2d 1725, 1730] (Fed. Cir. 2002). The next step in construing a means-plus-function claim limitation is to look to the specification and identify the corresponding structure for that function. "Under this second step, 'structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.'" *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 [68 USPQ2d 1263, 1267] (Fed. Cir. 2003) (quoting *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 [43 USPQ2d 1896, 1900] (Fed. Cir. 1997)).

If the specification defines what is meant by the limitation for the purposes of the claimed invention, the examiner should interpret the limitation as having that meaning. If no definition is provided, some judgment must be exercised in determining the scope of the limitation. See, e.g., *B. Braun Medical, Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424, 43 USPQ2d 1896, 1900 (Fed. Cir. 1997) ("We hold

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that, pursuant to [35 U.S.C. 112, sixth paragraph], structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. This duty to link or associate structure to function is the *quid pro quo* for the convenience of employing 112, paragraph 6." The court refused to interpret a means-plus-function limitation as corresponding to a disclosed valve seat structure, as argued by patentee, since there was no indication in the specification or prosecution history that this structure corresponds to the recited function, and there was an explicitly clear association between that function and a traverse cross section bar structure disclosed in the specification.).

As applied to the present case, the claim language as defined by the specification is directed to a display and operation surfaces where the display screen of the computer may be expanded to the surface of the desk on which the computer is placed and also to the surface of the walls of the room where the computer is located. In other words, the information space of the user expands beyond the limit of the digital space of the stand-alone computer to the entire room so that digital objects of the digital space of the computer and physical objects of the real world can be handled in an integrated manner. See, Specification, page 7, lines 1-7.

On the contrary, *Kuzunuki* is directed to an interactive information processing system and method which enables a user to physically manipulate electronic information on a display screen such as a computer screen. (See the Abstract). Specifically, *Kuzunuki* includes a desk cabinet 100 having a horizontally installed plane display 101 and a vertically installed front display 102 that are combined together. Additionally, the system includes an overhead camera 300 and projectors 5 and 106 which transforms physical or actual objects into images (Col. 7, lines 30-35; Figs. 1 and 2). As shown in Figs. 6A to 6C, an image object 104 (image of a document) is manipulated by the hands 200-1 and 200-2 of a user on a display. *Kuzunuki* is therefore directed to an information processing system which utilizes image recognition to enable users to scan and display images of physical objects on a display screen and manipulate the images of the objects on that display screen.

Kuzunuki does not disclose, teach or suggest that an image of a computer display screen may be expanded beyond the computer display, where an object in the local space of the computer and an object in the real world (which, for example, may include a real object on a table or on a wall) can be recognized and the objects can interact and move as if both the real objects and the object images are in one space. This provides a user with the ability to handle

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information by three-dimensionally making use of the positional relationship of various objects in the real world. Further, the claimed invention provides an interface environment where the work space of a computer can be expanded into the real world and where physical real space and a logical space (digital space) of a computer can be effectively linked. See, Specification, page 12, lines 7-13.

Again, *Kusunuki* does not disclose, teach or suggest the operation surface is expandable beyond the computer display, or that the relation between real objects in the real space and the object images in the computer space that are all present on the operation surface.

For at least these reasons, Claim 1 and Claims 3-5 which depend from Claim 1, are each patentability distinguished over *Kusunuki* and are in condition for allowance.

Independent claims 6, 9, 12, 15, 22, 26-28 and 30 each include certain similar elements to Claim 1. Accordingly, for at least the reasons provided above for Claim 1, Claims 6, 9, 12, 15, 22, 26-28 and 30, and Claims 7-8, 10-12, 13 and 23-25 which depend from these claims, respectively, are each patentability distinguished over *Kusunuki* and in condition for allowance.

Claims 2, 3, 8, 11, 17-21, 23 and 31-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kusunuki* in view of "the digital desk calculator," proceedings of ACM symposium on user interface software and technology (UIST) 11-13 November, 1991 written by Pierre Wellner ("*Wellner*") Applicant respectfully disagrees with and traverses this rejection at least for the following reasons.

As described in the previous response, Claims 2 and 3 depend from independent Claim 1. Claim 8 depends from independent Claim 6. Claim 11 depends from independent Claim 9. Claim 23 depends from independent Claim 22. Accordingly, Claims 2, 3, 8, 11 and 23 are allowable for at least the reasons set forth above with respect to independent Claims 1, 6, 9 and 22, respectively, and for the further reasons that the combination of *Kusunuki* and *Wellner* fails to disclose, teach or suggest the subject matter of Claims 2, 3, 8, 11 and 23 in combination with the subject matter of independent Claims 1, 6, 9, and 22. For these reasons, Claims 2, 3, 8, 11 and 23 are patentably distinguished over the combination of *Kusunuki* and *Wellner* and are in condition for allowance.

In addition, for example, *Wellner* fails to remedy the deficiencies of *Kusunuki*, as *Wellner* teaches away from the claim language. The Office Action states that *Kusunuki* teaches all of the elements of these claims but does not teach that "the physical object is a portable computer

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capable of being moved in said information space in exchanging digital objects with other computers." (See, the Office Action, pages 8 and 9). The Patent Office therefore attempts to remedy the deficiencies of *Kusunuki* using *Wellner*. Applicant respectfully submits that the combination of *Kusunuki* and *Wellner* does not disclose, teach or suggest the elements of Claim 3 for the following reasons. *Wellner*, for example, teaches on page 30, figure 2, that the DigitalDesk calculator is projected onto the desktop. Accordingly, the calculator is not a real object, but rather, the calculator is a projected image. In contrast, in the present claim language, the expanded display operation is implemented by a cooperation between the environment type computer and the portable computer. This is further defined, for example, in Claim 3. In this regard, a user of *Wellner* is interacting with a projected image, in contrast with interacting with a portable computer as in the present claim language. Clearly, the two are patentable distinguishable. See, for example, Specification, page 13, line 3, through page 14, line 13; page 46, line 21, through page 47, line 4; and, page 53, line 20, through page 57, line 6.

Regarding independent Claims 17 and 31, the Office Action states that *Kusunuki* teaches all of the elements of these claims but does not teach that "the physical object is a portable computer capable of being moved in said information space in exchanging digital objects with other computers." (See, the Office Action, pages 8 and 9). The Patent Office therefore attempts to remedy the deficiencies of *Kusunuki* using *Wellner*. Applicant respectfully submits that the combination of *Kusunuki* and *Wellner* does not disclose, teach or suggest the elements of Claims 17 and 31 for at least reasons above, and, in addition, for at least the following reasons.

Both independent claims 17 and 31 contain the claimed language, "a display means for displaying an image on said operation surfaces." As argued above, *Kusunuki* fails to teach, suggest or disclose such feature as claimed. Accordingly, the purported combination of *Kusunuki* and *Wellner*, where *Wellner* teaches a system that allows a user to interact with paper and electronic objects by physically touching them to manipulate them, fails to remedy the deficiencies of *Kusunuki*. Accordingly, the combination of *Kusunuki* and *Wellner* does not teach, suggest or disclose the elements of Claims 17 and 31.

For at least these reasons, Claim 17 and Claims 18 to 21 which depend from Claim 17, and Claim 31 and Claims 32-35 which depend from Claim 31, are each patentably distinguished over the combination of *Kusunuki* and *Wellner* and are in condition for allowance.

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In light of the above, Applicant respectfully submits that Claims 1-13, 15-28 and 30-35 are patentable over the art of record because neither *Kuzunuki* or *Wellner* when taken alone or in combination, disclose, teach or suggest all the elements of these claims. Accordingly, Applicant respectfully requests that Claims 1-13, 15-28 and 30-35 be deemed allowable at this time and that a timely notice of allowance be issued in this case.

Respectfully submitted,

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